



September 6, 2016

By Email

Attn: Harbor Comments
U.S. EPA, 805 SW Broadway, Suite 500
Portland, OR 97205

Re: Comments of MMGL Corp. on Portland Harbor Proposed Plan

Dear EPA Region 10:

These comments on the U.S. Environmental Protection Agency's Portland Harbor Proposed Plan (June 2016) are submitted on behalf of MMGL Corp. ("MMGL"). MMGL is a Washington corporation and is the successor by merger to Schnitzer Investment Corp. ("SIC"), an Oregon corporation.

Background

MMGL owns real property in the Portland Harbor Investigation Area, known as the Premier Edible Oils Site (the "PEO Site"). The PEO Site is an approximately 18.5-acre site located at 10400 N. Burgard Way. The PEO Site, located on the Portland Harbor waterfront along the east bank of the Willamette River at approximately river mile (RM) 3.8, is currently vacant and is zoned by the City of Portland for heavy industrial use.

MMGL's predecessor, SIC, entered into a Voluntary Agreement for Upland Remedial Investigation / Feasibility Study and Source Control Measures with the Oregon Department of Environmental Quality, DEQ No. ECDVC-NWR-01-06, effective March 6, 2001 (the "Voluntary Agreement"). The PEO Site is identified in DEQ's Environmental Cleanup Site Inventory (ECSI) as ECSI Site ID 2013.

In accordance with the Joint Source Control Strategy, in June 2014 DEQ recommended a groundwater Source Control Measure (SCM) consisting of a hydraulic barrier wall located upland from the top of the bank on the PEO Site to control potential migration of LNAPL into Transition Zone Water (TZW) and mitigate dissolved phase impacts to the Willamette River. Additional sampling, modeling, and data evaluation to refine remedial design has been completed. DEQ approved design submittals in Fall 2015 and subsequently the groundwater barrier wall (GWBW) was constructed at an approximate length of 500 feet and

depth of 35 feet. In addition to the GWBW, an oxygenation/biobarrier system will be located upgradient of the GWBW to oxygenate the aquifer and promote degradation and stabilization of LNAPL and dissolved phase contaminants. The performance of the groundwater SCM will be monitored in accordance with a performance monitoring plan, a draft of which was submitted to DEQ in March 2016.

In May 2016, DEQ requested a Pilot Study to install an oxygenation system pursuant to Respondent's Revised Basis of Design Report - Groundwater Source Control Measure (September 2015). DEQ also requested that MMGL submit source control reports describing (a) the installation of on-site stormwater infiltration systems to eliminate the pathway by which stormwater potentially can carry contamination offsite, and (b) the development of a source control measure to address the terrestrial ecological risk and riverbank erosion pathway with respect to dibenzofurans and PAHs. MMGL has submitted a proposal for stormwater infiltration and as discussed below has performed an analysis of the riverbank erosion pathway.

MMGL is currently working with DEQ to replace the 2001 Voluntary Agreement with a new Consent Order that will define the Scope of Work necessary to complete upland source control measures for the PEO Site and obtain a "no further action" determination from DEQ for the upland portion of the PEO Site.

Comment 1: Riverbanks generally and the riverbank at the PEO Site specifically should be excluded from the selected remedy.

Figure 6 of the Proposed Plan identifies "Properties with Known Contaminated River Banks." The PEO Site is identified as such a property on Figure 6. The Proposed Plan notes at p. 13:

Characterization of contaminated river banks is being managed by DEQ under an MOU with EPA. River bank remediation has already occurred at some locations in the Site. Remediation of contaminated river banks is included in the remedial alternatives if it is determined that it should be conducted in conjunction with the in-river actions (Figure 6 and Table 5).

At a general level, MMGL objects to the inclusion of riverbanks in any selected remedy. The Administrative Settlement and Order on Consent for the RI/FS did not encompass riverbanks. Thus, the Remedial Investigation did not collect data with respect to contaminants in riverbanks and the Feasibility Study had no basis for the analysis of alternatives with respect to riverbanks. In short, there should

be no RAO 9 (“reduce migration of COCs in river banks to sediment and surface water such that levels are acceptable in sediment and surface water for human health and ecological exposures”).

For the same reason, there should be no riverbank PRGs. The riverbank PRGs are not based on risk assessments or available data. They are nothing more than the PRGs for sediment, with no consideration of the factors that change exposure assumptions (e.g., amount of time the riverbank is inundated such that exposure occurs, the potential for erosion (e.g., based on bank stability metrics), groundwater influences, etc.). EPA selected the riverbank PRG as the lowest sediment PRG for a particular constituent, regardless of whether the spatial scale is appropriate (e.g., whether that PRG is meant to be applied site-wide or only in beaches).

The inclusion of the riverbank at the PEO Site in EPA’s remedial alternatives appears to be based on information in the DEQ Portland Harbor Upland Source Control Summary Report (Nov. 21, 2014). The purpose of the Summary Report is described at pages 5-6:

DEQ has consistently applied the Joint Source Control Strategy, commonly referred to as the JSCS, to all source control projects in the Harbor. Now, in preparation for the drafting of EPA’s Proposed Remedial Action Plan, DEQ prepared this report to summarize the progress of upland source control and status of completion at each site for evaluation of the potential for recontamination of the river sediment and risk to human health or ecological receptors.

In other words, the Summary Report is a progress report on DEQ’s work under the Joint Source Control Strategy. It was not intended to cede to EPA the role DEQ has for source control.

The March 2016 Update of the Summary Report (DEQ, Portland Harbor Upland Source Control Summary Report November 21, 2014 - Updated March 25, 2016) (p. 84) states the following with respect to the PEO Site:

Riverbank Erosion: Localized areas of contaminated soil are present in the shoreline and bank, which require source control measures. Sampling was completed in December 2014 to confirm the nature, extent and location of contaminants in the erodible shoreline and near-shore area for focused removal and stabilization actions in 2016. Until completion of the final bank remedy, the

pathway is considered uncontrolled and sediment recontamination potential from bank erosion is considered medium.

Even the March 2016 Update does not reflect current knowledge with respect to the PEO Site. MMGL has collected additional soil data, which has been reported in the source control evaluation report that was submitted to DEQ in March 2016 (still pending DEQ comments). In addition, MMGL has performed an analysis of riverbank erodibility at the PEO Site using the Bank Assessment for Non-point Source Consequences of Sediment (BANCS) methodology. This methodology was used at the recommendation of DEQ staff, based on what MMGL understands is an agreement between DEQ and EPA that it is to be the standard methodology used for riverbank source control evaluation. Bank profiles were surveyed on May 17, 2016 and MMGL has met with DEQ to discuss the results of the BANCS analysis.

In summary, MMGL has completed a significant portion of the source control evaluation for the PEO Site and is in the process of implementing source control measures. As discussed above, MMGL also is in the process of negotiating with DEQ a Consent Order to replace the 2001 Voluntary Agreement. Counsel for MMGL submitted to the Oregon Department of Justice in June 2016 a draft Consent Order that includes a requirement for MMGL to “implement focused soil removal and/or remedial actions to address PAHs and dibenzofuran in Eco-Zone soils.” The “Ecological Zone” or “Eco-Zone” is the area extending riverward from the City of Portland Greenway Setback (defined as 25 feet upland from the Top of Bank). Thus, MMGL’s draft proposed Consent Order would require implementation of measures to prevent recontamination of the Portland Harbor from contaminated soils on the river bank.

MMGL requests that EPA exclude the river bank within the Portland Harbor from the selected remedy on the basis that riverbanks were not within the scope of the Remedial Investigation and remedies for riverbanks therefore cannot be part of the Feasibility Study or the selected remedy. Specific to the PEO Site, moreover, source control evaluation is already occurring under DEQ oversight and will be included in a Consent Order between MMGL and DEQ.

In the alternative, MMGL requests that the remediation of river bank soils be required only where soils exceeding PRGs for RAO 9 (“reduce migration of COCs in river banks to sediment and surface water such that levels are acceptable in sediment and surface water for human health and ecological exposures”) are determined to be erodible according to the BANCS methodology. This will minimize the risk of additional or inconsistent remedial action requirements

from EPA if MMGL implements source control measures for the river bank at the PEO Site under DEQ oversight and consistent with the BANCS methodology.

Comment 2: Groundwater generally and the PEO Site specifically should be excluded from the selected remedy.

Similarly, Figure 5 of the Proposed Plan shows at least a portion of the PEO Site as having a “groundwater plume” that is apparently being considered part of a groundwater remedy to be prescribed in the Record of Decision. This figure is, however, inconsistent with text in the Proposed Plan which states:

It is EPA’s expectation that DEQ’s upland source control actions will adequately address groundwater contamination. EPA’s RAOs above are focused on containing and reducing migration of COCs from groundwater to surface water and biologically active areas of sediment. Should groundwater not be addressed adequately under DEQ’s actions, EPA may, at a future time, determine if action is warranted under CERCLA to further address groundwater contamination. Proposed Plan at 22.

If it is EPA’s plan to prescribe groundwater remedial actions in the Record of Decision, MMGL objects to this for many of the same reasons discussed above with respect to riverbanks. Similar to riverbanks, it has always been contemplated that groundwater remediation would be under the oversight of DEQ under the authorization given to it by the above-described MOU. DEQ is using that authority to require groundwater controls, and there is no need for EPA to address this in its Record of Decision.

MMGL objects particularly with respect to any inclusion of a groundwater remedy at the PEO site in the Record of Decision. As with its riverbank, MMGL has already fully investigated the contamination and committed under the Voluntary Cleanup Agreement to implement source control. Moreover, with respect to the groundwater, MMGL has already performed source control! DEQ described the progress of the groundwater work as follows in the March 2016 update to its Source Control Summary Report:

Groundwater: The primary area of concern for groundwater has been in the southwest corner of the site, where historic releases of petroleum fuels to groundwater occurred. Areas of nonaqueous phase liquids in the subsurface present an ongoing source of dissolved petroleum constituents and have also mobilized metals in groundwater by creating reducing conditions in the subsurface. DEQ approved the site’s proposed design of a hydraulic barrier wall, which was installed in 2015 at an approximate length of 550 feet and width of 35 feet. An oxygenation system is planned

for installation behind the wall in 2016. Forthcoming performance monitoring is anticipated to demonstrate effective control and DEQ considers the potential for sediment recontamination due to these constituents in groundwater to be low (pp. 84-85).

Groundwater remedies in general should not be included in EPA's Record of Decision. In particular, the PEO site should not be called out as requiring a groundwater remedy, because it has already implemented that remedy and, as described above, is in the course of both installing a pilot oxygenation/biobarrier system and conducting the required performance monitoring. Nothing more is required.

Comment 3: If EPA proceeds to prescribe groundwater remedies, a groundwater PRG for manganese should not be based on tap water standards (i.e., protection of surface water for direct human consumption).

Arsenic and manganese have been detected at between 1 and 10 times the screening levels in groundwater within the southwest portion of the PEO Site. The source of these dissolved metals is considered to be mobilization of naturally occurring arsenic and manganese under reducing conditions created by biological degradation of petroleum hydrocarbons. As mentioned above, MMGL has already installed a groundwater barrier wall as a groundwater SCM, and will develop, install and operate an oxygenation/biobarrier system upgradient of the GWBW to oxygenate the aquifer and promote degradation and stabilization of LNAPL and dissolved phase contaminants. The performance of the groundwater SCM will be monitored in accordance with a performance monitoring plan, a draft of which was submitted to DEQ in March 2016. RAOs for manganese and arsenic in groundwater are critical for MMGL to finalize the groundwater source control measure performance monitoring plan.

Table 11 of the Proposed Plan proposes a groundwater PRG for manganese of 430 ug/l. The origin of this PRG appears to be an EPA Regional Screening Level for tapwater, based on risk to human health.¹ Table 2.2-2 of the Feasibility Study,

¹ Table 2.1-1 of EPA June 2016 Feasibility Study identifies the source of this PRG as an "EPA Regional Screening Level (RSL) for Groundwater." That is incorrect. The current version of the document that EPA references in that table is called the "Regional Screening Level (RSL) Resident Tapwater Table" (May 2016 version). The prior November 2015 version to which EPA cites in Table 2.1-1 of the Feasibility Study was called the "Regional Screening Level (RSL) Summary Table," but it clearly indicated that the manganese RSL to which EPA refers of 430 ug/L was for "Tapwater."

however, indicates that manganese was not found to pose a risk to human health. Therefore, the PRG for manganese should not be based on human health criteria.

Even assuming for purposes of argument that the PRG *should* be based on human health, the groundwater PRG of 430 ug/L for manganese cannot be justified for several reasons. First, the surface water in the Willamette River already meets this identified PRG. Second, groundwater concentrations of manganese are not predictive of surface water concentrations because manganese becomes oxidized as it moves into the surface water, and it precipitates out of solution. Third, human use of surface water from the Willamette River requires pre-treatment.² Manganese is one of the substances most clearly controlled by conventional water pretreatment, which would include hardness adjustment/water softening, filtration and chlorination. Therefore manganese levels in groundwater/porewater in no way reflect the manganese concentrations that would be present in surface water, let alone in treated water used for potable purposes.

Further, we note that because the 430 ug/L value is an EPA Regional Screening Level, it is not an ARAR. In fact, Table 2.1-1 of EPA June 2016 Feasibility Study specifically identifies the RSL table from which this value was taken as a “To Be Considered” criterion, not an ARAR.

MMGL requests that EPA eliminate any groundwater PRG for manganese because groundwater concentrations do not correspond to surface water concentrations or to concentrations in treated potable water. To the extent EPA employs any groundwater criteria for manganese, the approach should be based on ecological hardness-dependent criteria.

Comment 4: If EPA proceeds to prescribe groundwater remedies, the surface water PRG for arsenic should be set at the Oregon Water Quality Standard of 2.1 ug/L rather than the NRWQC of 0.018 ug/L.

Table 11 of the Proposed Plan (“Summary of PRGs by Media”) lists the surface water and groundwater PRGs for arsenic as 0.018 ug/L and lists the basis for the PRGs as “A,” signifying ARAR. MMGL believes that a groundwater PRG for

² Oregon’s beneficial use designation for the Willamette River says the waterway should be protected for drinking water use “with adequate pretreatment.” OAR 340-041-0340, Table 340A. Oregon rules set forth the adequate pretreatment that is required, all focused on the quality of the water delivered after treatment to the user. OAR 333-061-0025 et seq. EPA’s own regulations governing MCLs says the point of compliance with an MCL is at the tap after treatment at the entry point to the water distribution system, not in a river that could very hypothetically supply water into a treatment system. 40 C.F.R. 141.23(2).

arsenic is inappropriate and unnecessary for the same reasons identified above with respect to EPA's proposed groundwater PRG for manganese.

Moreover, for a surface water PRG to be based on an ARAR, it should be based on the relevant Oregon water quality standard rather than a National Recommended Water Quality Criterion (NRWQC):

“If a State has promulgated a numerical [water quality standard, or “WQS”] that applies to the contaminant and the designated use of the surface water at a site, the WQS will generally be applicable or relevant and appropriate for determining cleanup levels, rather than [the National Recommended Water Quality Criterion or “NRWQC”]. A WQS represents a determination by the State, based on the [NRWQC], of the level of contaminant which is protective in that surface water body, a determination subject to EPA approval.” (Emphasis added.) 53 F.R. 51394, 51442 (Dec. 21, 1988, explanation of revisions to the National Contingency Plan).

Oregon revised its human health water quality standard for arsenic on April 21, 2011 to 2.1 ug/L. In doing so, Oregon evaluated the NRWQC but set its standard higher than the NRWQC based on state-specific reasons, including its development of state-specific bio-concentration factors. EPA approved the criteria on October 17, 2011, making the revised criteria effective under the Clean Water Act. Thus, any discharge to the Willamette River meets the state water quality standard so long as it does not create a concentration in the river in excess of 2.1 ug/L.

EPA's Proposed Plan ignores the Oregon WQS. EPA proposes instead a surface water PRG for arsenic of 0.018 ug/L, based on the NRWQC, even though Oregon has determined (with EPA's approval) that a concentration of 2.1 ug/L is fully protective. EPA, in other words, will require any discharge to the Portland Harbor (e.g. groundwater, or discharges from remedial actions) to be meet a standard for concentrations in the river that is more than two orders of magnitude lower than the EPA-approved water quality standard applicable to the Willamette River.

EPA should recognize the promulgated water quality standard of 2.1 ug/L as the ARAR and set the surface water PRG for arsenic at that level.

Comment 5: The surface water PRGs for PAHs should be the Oregon water quality standards rather than EPA's NRWQC.

For the same reason discussed above with respect to Comment 2, the surface water PRGs for PAHs should be based on Oregon's water quality standards, adopted with EPA approval, rather than on EPA's NRWQC.

Moreover, there should not be either a surface water or groundwater PRG for cPAHs. Table 11 of the Proposed Plan identifies surface water and groundwater PRGs of 0.00012 ug/L for cPAHs (as benzo(a)pyrene equivalent). Oregon went through the process of adopting water quality criteria for individual PAHs, with EPA approval, and opted to regulate individual PAHs rather than cPAHs as a class. Because ARARs have to be regulations as applied by the state, the PRG list should rely solely on PRGs for individual PAHs that match the Oregon water quality standards. And again, the PRG for surface water should not be used as a groundwater PRG. Rather, groundwater should be remediated to ensure that it does not cause an exceedance of the surface water PRG in surface water; EPA cannot demonstrate that groundwater discharging to the Willamette River must be remediated to the surface water PRG in order to achieve that objective.

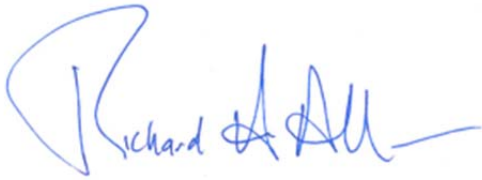
Comment 6: The RAO 8 groundwater/porewater PRG for TPH-diesel requires clarification.

Table 11 of the Proposed Plan lists a groundwater PRG for TPH-diesel of 2.6 ug/L, based on risk. It is our understanding that EPA removed the RAO 8 PRG for TPH in its Feasibility Study (Table 2.2-1). Although this change was not carried over into Table 11, it appears this was a mistake and it was EPA's intent not to establish a groundwater/porewater PRG for TPH-diesel, which we believe is the appropriate choice.

If this understanding is incorrect, MMGL has two concerns with a TPH-diesel groundwater PRG. First, it is not clear whether the PRG would be for TPH-diesel or only for the specific C10-C12 aliphatic fraction (in Table 2.2-11 ("RAO 8 PRG Derivation")). In the Feasibility Study, the tentative PRG for RAO 8 (Ecological Direct Contact/Ingestion for Pore Water) appeared to be based on risk associated with a specific fraction (C10 – C12 Aliphatics) of TPH diesel). If applied to TPH-diesel, it is substantially lower than the 1 mg/L standard DEQ continues to use for groundwater discharging to surface water. Second, MMGL understand that the available analytical methods for the C10-C12 aliphatic fraction have method detection limits substantially higher than the proposed PRG and the PRG would have to be adjusted to match the available methodology. Specifically, the Volatile Petroleum Hydrocarbons (VPH) Fractions or the Extractable Petroleum

Hydrocarbons (EPH) Fractions analytical methods can be used to quantify multiple carbon chain length fractions of both aliphatic and aromatic hydrocarbons within the range of C5 – C12 for VPH, and C8 – C34 for EPH. However, these methods have a method detection limit in the 40 to 50 ug/L range depending on matrix conditions. Thus, EPA would need to note that these detection limits would cause a practical adjustment in the PRG.

Sincerely,

A handwritten signature in blue ink, appearing to read "Richard H. Allan", with a stylized flourish at the end.

Richard H. Allan